



COMMONWEALTH of VIRGINIA

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**STATE WATER CONTROL BOARD
ENFORCEMENT ACTION - ORDER BY CONSENT
ISSUED TO
NORFOLK SOUTHERN RAILWAY COMPANY
FOR
An Unauthorized Discharge to State Waters
Train Derailment near Appalachia, Virginia
Incident Report ("IR") No.: 2018-S-1175**

SECTION A: Purpose

This is a Consent Order issued under the authority of Va. Code § 62.1-44.15, between the State Water Control Board and Norfolk Southern Railway Company, regarding a train derailment along Route 68 near Appalachia (IR No. 2018-S-1175), for the purpose of resolving certain violations of State Water Control Law and the applicable regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia, as described in Va. Code §§ 10.1-1184 and 62.1-44.7.
2. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia, as described in Va. Code § 10.1-1183.
3. "Director" means the Director of the Department of Environmental Quality, as described in Va. Code § 10.1-1185.
4. "Discharge" means, when used without qualification, a discharge of a pollutant, or any addition of a pollutant or combination of pollutants, to state waters or waters of the contiguous zone or ocean other than a discharge from a vessel or other floating craft when being used as a means of transportation.

5. "Fill" means replacing portions of surface water with upland, or changing the bottom elevation of surface water for any purpose, by placement of any pollutant or material including but not limited to rock, sand, earth, and man-made materials and debris. 9 VAC 25-210-10.
6. "Fill Material" means any pollutant which replaces portions of surface water with dry land or which changes the bottom elevation of a surface water for any purpose. 9 VAC 25-210-10.
7. "IR" means incident report.
8. "Norfolk Southern" means Norfolk Southern Railway Company, a corporation authorized to do business in Virginia and its parent, affiliates and subsidiaries. Norfolk Southern Railway Company is a "person" within the meaning of Va. Code § 62.1-44.3.
9. "Notice of Violation" or "NOV" means a type of Notice of Alleged Violation under Va. Code § 62.1-44.15.
10. "Order" means this document, also known as a "Consent Order" or "Order by Consent," a type of Special Order under the State Water Control Law.
11. "Permit" or "Virginia Water Protection Permit" means an individual or general permit issued under Va. Code § 62.1-44.15:20 that authorizes activities otherwise unlawful under Va. Code § 62.1-44.5 or otherwise serves as the Commonwealth's certification under § 401 of the federal Clean Water Act (33 United States Code ("USC") § 1344.
12. "Pollutant" means any substance, radioactive material, or heat which causes or contributes to, or may cause or contribute to pollution. 9 VAC 25-210-10.
13. "Pollution" means such alteration of the physical, chemical or biological properties of any state waters as will or is likely to create a nuisance or render such waters: (i) harmful or detrimental or injurious to the public health, safety or welfare, or to the health of animals, fish or aquatic life; (ii) unsuitable with reasonable treatment for use as present or possible future sources of public water supply; or (iii) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses; provided that (a) an alteration of the physical, chemical, or biological property of state waters, or a discharge or deposit of sewage, industrial wastes or other wastes to state waters by any owner which by itself is not sufficient to cause pollution, but which, in combination with such alteration of or discharge or deposit to state waters by other owners is sufficient to cause pollution; (b) the discharge of untreated sewage by any owner into state waters; and (c) contributing to the contravention of standards of water quality duly established by the board, are "pollution." Va. Code § 62.1-44.3; 9 VAC 25-210-10.
14. "Regulations" means the Virginia Water Protection Permit Program Regulations, 9 VAC 25-210 *et seq.*

15. "Significant alteration or degradation of existing wetland acreage or function" means human-induced activities that cause either a diminution of the areal extent of the existing wetland or cause a change in wetland community type resulting in the loss or more than minimal degradation of its existing ecological functions. 9 VAC 25-210-10.
16. "Site" means the immediate vicinity at or near milepost TB 2.2 and railroad crossing number 714934J, near Rt. 68 near Appalachia, Virginia where the train derailment occurred on November 18, 2017, including the reach of the impacted areas within Pigeon Creek and the Powell River.
17. "State Water Control Law" means Chapter 3.1 (§ 62.1-44.2 *et seq.*) of Title 62.1 of the Va. Code. Article 2.2 (Va. Code §§ 62.1-44.15:20 through 62.1-44.15:23) of the State Water Control Law addresses the Virginia Water Resources and Wetlands Protection Program.
18. "State waters" means all water, on the surface and under the ground, wholly or partially within or bordering the Commonwealth or within its jurisdiction, including wetlands. Va. Code § 62.1-44.3 and 9 VAC 25-210-10.
19. "Surface water" means all state waters that are not ground waters as defined in Va. Code § 62.1-255.
20. "SWRO" means the Southwest Regional Office of DEQ, located in Abingdon, Virginia.
21. "USACE" means the United States Army Corps of Engineers.
22. "Va. Code" means the Code of Virginia (1950), as amended.
23. "VAC" means the Virginia Administrative Code.
24. "Wetlands" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. 9 VAC 25-210-10.

SECTION C: Findings of Fact and Conclusions of Law

1. Norfolk Southern owns and operates an interstate railroad system within the Commonwealth of Virginia.
2. Pigeon Creek is a tributary to the Powell River. Both are located in the Tennessee–Big Sandy River Basin, Clinch River Subbasin. Each is classified as Section 1; Class IV; Special Standards: None. Pigeon Creek is included in the *E. coli and Phased Benthic Total Maximum Daily Load Development for the Powell River and Tributaries*. The suspected cause of the impairment is sediment. The TMDL was approved by EPA on 03/10/2011. Pigeon Creek confluences with the Powell River within a segment that

continues one mile downstream within the Powell River, to the confluence of Roaring Fork. This segment is impaired for failure to support both the aquatic life and recreational uses. The next downstream segment, running from the confluence of Roaring Fork to the confluence with the South Fork Powell River in Big Stone Gap (2.71 miles), is impaired for failure to support the aquatic life and recreational uses. The causes of the impairments within these segments of the Powell River are sediment and bacteria. The next downstream segment, from the confluence of the South Fork Powell River at Big Stone Gap to the confluence of Poor Valley Creek (a 10.27 mile segment within which visible observation of the plume ended), has not been assessed. The train derailment occurred in a segment of Pigeon Creek that is impaired for failure to support the aquatic life use.

3. On November 18, 2017, DEQ responded to a report of a Norfolk Southern train derailment along Route 68, near Appalachia, Virginia. A total of 38 rail cars derailed, ten of which spilled coal, four of which spilled approximately 400 tons of coal directly into the channel of Pigeon Creek, a tributary to the Powell River. DEQ assigned IR No. 2018-S-1175 to this incident.
4. Per DEQ staff investigation, over 1,000 feet of stream channel was impacted. A plume was observed in Pigeon Creek from the point of derailment to its confluence with the Powell River (approximately two miles). The plume then continued downstream in the Powell River, with turbidity observed at Strawberry Patch Road (approximately 5.71 miles below the confluence of Pigeon Creek with the Powell River). No turbidity was observed at Cave Springs Road, which is approximately 9.5 miles below the confluence of Pigeon Creek with the Powell River and 11 to 12 miles below the location of the derailment.
5. Norfolk Southern personnel and environmental contractors notified regulatory agencies of the derailment and coordinated an immediate response. Sediment controls, including booms, permeable and non-permeable turbidity curtains, silt fence and straw bales were placed in Pigeon Creek to minimize downstream migration of bulk coal and sediment during removal and cleanup. Bulk coal, except within the channel of Pigeon Creek itself and below the ordinary high water mark, was removed to the extent practical by mechanical means. Coal below the ordinary high water mark was removed by excavators positioned on the stream bank.
6. The Federal Railroad Administration has posted a primary cause of the derailment on its website.
7. During site cleanup activities on November 20, 2017, heavy equipment damaged a ten-inch water main located in the vicinity of the derailment. Large volumes of water were released into Pigeon Creek, increasing the turbidity of both Pigeon Creek and the Powell River, for several miles downstream. Additional straw bale check dams and turbidity curtains were utilized to control the increased turbidity. Turbidity was observed up to or about November 27, 2017. Bottled water was provided to those affected by the water main break until repairs were made and service restored.

8. During emergency response and cleanup activities, temporary impacts occurred to both riparian and upland areas as equipment access was gained for removal of the coal. On November 22, 2017, an environmental consultant collected initial site stream characteristics, including longitudinal profile, cross section and pebble counts in three locations, to develop a restoration plan for disturbed areas. Norfolk Southern submitted a stream restoration plan to DEQ on December 4, 2017. DEQ approved the plan on December 12, 2017. Site restoration work was completed in accordance with the approved plan on March 1, 2018.
9. The cost of staff investigation totaled \$10,186.54. Cost of vehicle travel totaled \$627.79. Cost of travel meals and lodging totaled \$475.68. The total cost of staff investigation, vehicle travel and travel meals and lodging was \$11,290.01.
10. A review of DEQ files indicates that the Department had issued no permits or certificates to Norfolk Southern for the unauthorized discharges to state waters.
11. On December 19, 2017, DEQ issued NOV No. NOV-014-1217-WA for the unpermitted discharge of approximately 400 tons of coal directly into Pigeon Creek, alleging violations of Va. Code § 62.1-44.5 and Regulations 9 VAC 25-210-50(A) and 9 VAC 25-260-20.
12. Va. Code § 62.1-44.5 prohibits waste discharges or other quality alterations of state waters except as authorized by permit. A. Except in compliance with a certificate or permit issued by the Board or other entity authorized by the Board to issue a certificate or permit pursuant to this chapter, it shall be unlawful for any person to: 1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; 2. Excavate in a wetland; 3. Otherwise alter the physical, chemical or biological properties of state waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses; or 4. On and after October 1, 2001, conduct the following activities in a wetland: a. New activities to cause draining that significantly alters or degrades existing wetland acreage or functions; b. Filling or dumping; c. Permanent flooding or impounding; or d. New activities that cause significant alteration or degradation of existing wetland acreage or functions. 5. Discharge stormwater into state waters from Municipal Separate Storm Sewer Systems or land disturbing activities.
13. Regulation 9 VAC 25-210-50(A). Except in compliance with a VWP permit, unless the activity is otherwise exempted or excluded, no person shall dredge, fill, or discharge any pollutant into, or adjacent to surface waters; withdraw surface water; otherwise alter the physical, chemical, or biological properties of state waters regulated under this chapter and make them detrimental to the public health, to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, for recreation, or for other uses; excavate in wetlands; or on or after October 1, 2001, conduct the following activities in a wetland: 1. New activities to cause draining that significantly alters or degrades existing wetland acreage or functions; 2. Filling or dumping; 3. Permanent flooding or impounding; or 4. New activities that cause significant alteration or degradation of existing wetland acreage or functions.

14. Regulation 9 VAC 25-260-20 of the Water Quality Standards requires that all state water shall be free from substances attributable to sewage, industrial waste, and other material in concentrations which interfere with designated uses of such water or is harmful to human, animal, plant or aquatic life.
15. Va. Code § 10.1-2502 states that the agency shall seek reimbursement from any person causing or contributing to an environmental pollution incident for all sums disbursed from the Virginia Environmental Emergency Response Fund for the protection, relief and recovery from loss or damage caused by such person.
16. On January 8, 2018, Department staff teleconferenced with representatives of Norfolk Southern to discuss the violations. Norfolk Southern then submitted a written response to the NOV, dated and received by DEQ on January 19, 2018.
17. Based on the results of November 18-19, 2017 field investigation and follow-up inspections, the January 8, 2018 teleconference, and documentation submitted on December 4, 2017 and January 19, 2018, the Board concludes that Norfolk Southern has violated Va. Code § 62.1-44.5 and Regulations 9 VAC 25-210-50(A) and 9 VAC 25-260-20, as described in paragraphs C(3) through C(10), above.
18. In order for Norfolk Southern to complete its return to compliance, DEQ staff and representatives of Norfolk Southern have agreed to the Schedule of Compliance, which is incorporated as Appendix A of this Order.

SECTION D: Agreement and Order

Accordingly, by virtue of the authority granted it in Va. Code §§ 62.1-44.15, the Board orders Norfolk Southern Railway Company, and Norfolk Southern Railway Company agrees to:

1. Perform the actions described in Appendix A of this Order;
2. Pay a civil charge of \$39,000.00 within 30 days of the effective date of the Order in settlement of the violations cited in this Order; and
3. Reimburse DEQ \$11,290.01 for total investigative costs within 45 days of the effective date of the Order.

Payment shall be made by check, certified check, money order or cashier's check payable to the "Treasurer of Virginia," and delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 1104
Richmond, Virginia 23218

Norfolk Southern Railway Company shall include its Federal Employer Identification Number (FEIN) with the civil charge payment and shall indicate that the payment is being made in accordance with the requirements of this Order for deposit into the Virginia Environmental Emergency Response Fund (VEERF). If the Department has to refer collection of moneys due under this Order to the Department of Law, Norfolk Southern Railway Company shall be liable for attorneys' fees of 30% of the amount outstanding.

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend this Order with the consent of Norfolk Southern for good cause shown by Norfolk Southern, or on its own motion pursuant to the Administrative Process Act, Va. Code § 2.2-4000 *et seq.*, after notice and opportunity to be heard.
2. This Order addresses and resolves only those violations specifically identified in Section C of this Order and in NOV No. NOV-014-1217-WA, dated December 19, 2017. This Order shall not preclude the Board or the Director from taking any action authorized by law, including but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility; or (3) taking subsequent action to enforce the Order.
3. For purposes of this Order and subsequent actions with respect to this Order only, Norfolk Southern admits to the jurisdictional allegations, and agrees not to contest, but neither admits nor denies, the findings of fact and conclusions of law in this Order. This Order represents a compromise settlement on contested claims and shall not constitute, be interpreted, construed or used as evidence of any admission of liability, law or fact against Norfolk Southern.
4. Norfolk Southern consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.
5. Norfolk Southern agrees not to contest that it has received fair and due process under the Administrative Process Act and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to modify, rewrite, amend, or enforce this Order.
6. Failure by Norfolk Southern to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.
7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Norfolk Southern shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other unforeseeable circumstances beyond its control and not due to a lack of good faith or diligence on its part. Norfolk Southern shall demonstrate that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Norfolk Southern shall notify the DEQ Regional Director verbally within 24 hours and in writing within three business days when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:
- a. the reasons for the delay or noncompliance;
 - b. the projected duration of any such delay or noncompliance;
 - c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and
 - d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

Failure to so notify the Regional Director verbally within 24 hours and in writing within three business days, of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto and any successors in interest, designees and assigns, jointly and severally.
10. This Order shall become effective upon execution by both the Director or his designee and Norfolk Southern. Nevertheless, Norfolk Southern agrees to be bound by any compliance date which precedes the effective date of this Order.
11. This Order shall continue in effect until:
- a. The Director or his designee terminates the Order after Norfolk Southern has completed all of the requirements of the Order;
 - b. Norfolk Southern petitions the Director or his designee to terminate the Order after it has completed all of the requirements of the Order and the Director or his designee approves the termination of the Order; or
 - c. the Director or Board terminates the Order in his or its sole discretion upon 30 days' written notice to Norfolk Southern.

Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Norfolk Southern from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. Any plans, reports, schedules or specifications attached hereto or submitted by Norfolk Southern and approved by the Department pursuant to this Order are incorporated into this Order. Any non-compliance with such approved documents shall be considered a violation of this Order.
13. The undersigned representative of Norfolk Southern certifies that he or she is a responsible official authorized to enter into the terms and conditions of this Order and to execute and legally bind Norfolk Southern to this document. Any documents to be submitted pursuant to this Order shall also be submitted by a responsible official of Norfolk Southern or his/her designee.
14. This Order constitutes the entire agreement and understanding of the parties concerning settlement of the violations identified in Section C of this Order, and there are no representations, warranties, covenants, terms or conditions agreed upon between the parties other than those expressed in this Order.
15. By its signature below, Norfolk Southern voluntarily agrees to the issuance of this Order.

And it is so ORDERED this 13th day of December, 2018.



Jeffrey L. Hurst, Regional Director
Department of Environmental Quality

Norfolk Southern Railway Company voluntarily agrees to the issuance of this Order.

Date: 10/9/18 By: *[Signature]*, General Solicitor
Helen Hart (Person) (Title)
for Norfolk Southern Railway Company

Commonwealth of Virginia

City/County of Norfolk

The foregoing document was signed and acknowledged before me this 9th day of

October, 2018, by Helen M. Hart who is

General Solicitor for of Norfolk Southern Railway Company,

on behalf of the company.

[Signature]
Notary Public

300972
Registration No.

My commission expires: 6/30/21

Notary seal:



APPENDIX A SCHEDULE OF COMPLIANCE

DEQ asserts that in order to comply with the provisions of the State Water Control Law and the Regulations, Norfolk Southern Railway Company shall complete the following monitoring actions, as they relate to the “Ecological Restoration Plan – Appalachia, VA, Wise County” submitted by Norfolk Southern Railway Company’s consultant on December 4, 2017, approved by DEQ on December 12, 2017 with initial restoration work completed March 1, 2018, by the dates noted below:

1. On October 15, 2018 and April 15, 2019, submit a monitoring report that demonstrates that all impacted areas where restoration occurred are stable. If any restoration areas show instability (erosion, lack of vegetative cover, dead plantings, etc.), noted instability will be addressed within ten (10) days.
 - a. Notify DEQ in writing within fifteen (15) days of completion of any repair work done as a result of the observations made during each monitoring period.
2. Unless otherwise specified in this Order, Norfolk Southern Railway Company shall submit all requirements of Appendix A of this Order to:

Ralph T. Hilt
Enforcement/Compliance Specialist, Sr.
Virginia DEQ – Southwest Regional Office
355-A Deadmore Street
Abingdon, Virginia 24210
phone: (276) 676-4878
fax: (276) 676-4899
e-mail: ralph.hilt@deq.virginia.gov